

Crisis Preparedness and Response for Schools: An Analytical Study of Punjab, Pakistan

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Abstract

This research study aims to analyze the Preparedness and Response to crises in School Education department at secondary level in Punjab, Pakistan. This was done through the experiences and views of District Education Officers (DEOs), Head of Schools and Secondary School Teachers (SST). The purpose of the study was not only to examine preparedness and response to crises but also to help education administration with specific reference to circumstances under which the process of crisis management at school level is going on, within the Pakistani Education system. For collection of data a detailed questionnaire for DEOs, Heads and Teachers was used in nine sampled districts out of 36 (25%) of the Punjab. The study remained with descriptive type of research methodology. To evaluate the crisis Preparation and response of administration, 6 main and 31 sub factors were analyzed through the process of percentage (%), Weighted Mean (WM), and Standard Deviation (SD). After gone through the process of analysis of data and findings of the study it was revealed that at administration and management (DEOs & Head) level the practices of crisis management remained satisfactory. The school administration carries the practices in normal way. No concept of creating awareness among the students about crisis. No proper system of crisis response team, training and other measures were not found, which are very important for safety and security of the students and staff.

Keywords: Educational Crisis Management, Crisis preparedness & Response

1. Introduction

Crisis is an event of any unexpected situation which can cause harm to the organization, its staff, property, stakeholders, reputations of an organization and its future assets. These may include school bus crashes, suicides, or multiple injuries or deaths, natural disasters, can quickly deteriorate wide devastation into a School if not dealt with instantly and commendably.

The knowledge and skill to handle and mitigate effects of such an event is the basic requirement of the crisis management function. With respect to determination of this study, Decker (2007) explained crisis as “a sudden, generally unanticipated event that profoundly and negatively affects a significant segment of the school population and often involves serious injury or death.” (p.116)

Crisis management is not only a single click function of a mouse or chain of steps to follow to deal the crisis, but it is the process of something special as a set of efforts to stop or avoid a crisis as well. It also deals with the proactive approach for dealing the potential crisis scenario. In the past it was called emergency dealing which may include the act of dealing accidents and incidents.

In the modern world of today schools are supposed to be an independent entity have its own MIS which deals to collect information, planning and execution to handle emergency and risk management. The concept of dealing crisis through “the process of preparedness & response at local level is becoming more and more popular in these days due to the procedural steps involved and availability of resources.” The process of crisis management is mainly the set of steps through which an institution or organization encounters the threats which are going to be dangerous for itself, its shareholders, or public in general.

2. Objectives of the Study

- i. To examine the Crisis preparedness & Response practices of Management in School Education Department.
- ii. To evaluate the concepts and trends of modern managerial styles of heads of Schools for Educational Crisis Management.

3. Review of Literature

A critical moment or turning point in a course of life a person, nation or an institution may be called a crisis according to dictionary definition, (Oxford, 1987). Another way in the business world, it might be define crisis as a circumstances which are not disclose substantially, hypothetically endanger a company's staff, stakeholders, assets, facilities, financial situation, or market value. In these both descriptions consist of a common factor i.e.

the element of earnestness which needs an instant and spontaneous process of decision making, so that an action of survival may be taken for the people who are involved. As Coombs (2000), defining the crisis specifically for schools is that crises have the quality of: being sudden in nature, unexpected to occur and having potential to affect the whole school community (p.34).

Arpan & Pompper, (2006, p.34) explained Crisis Management is a “progression of revolution in which the previous setup no longer work, if it works there is no crisis”. Thus the important element is the need for change itself. If there is a need of any change, the situation may be described as crisis. Generally crises are of low probability; high consequence occasions can damage an organization in all aspects including its prosperity, business and repute at high scale. A crisis has potential to break the emotions of general public and value system of any society.

In this modern era of human life it will be false assumption, if someone believes that such events cannot happen in “Pakistani Schools.” going through the reading of newspapers, watching electronic and social media, and if some of us are directly or indirectly involved with School, it has become obvious that Schools are involved in foremost situations which might be the sources of crisis on a much more regular basis than most care to contemplate.

Head of a school has an important responsibility as leader in the time of crisis. The leader should have the elements of calmness, analyzing activeness and in time decision making to manage the situation effectively. If the Head of school is not active enough to have proactive approach there may be disaster left effects more than the crisis itself.

In these days the definition of crisis can be framed in three categories: As Hermann (1963) explained: An organizational crisis:

- i. Fear of loss to high value asserts of the organization.
- ii. Limited time available to response the odd situation.
- iii. Unexpected to the organization.

When the situation is not familiar, there is a chance of going for solution to practicing the orthodox method of trial and error. The crisis circumstances normally help as presenting grounds for the inconsistent cooperation-clash relationship between presses and public relations officers. (Arpan & Pompper, 2003)

According to Shafa, (2000, p.39) reputation is an important element of any company, Organization or an individual. Moreover these may or may not be from public sector, profit oriented or noncommercial organizations; all these required a good image in their respective environment.

A well reputed organization can helps itself for healthy competition, to achieve goals and build their future on strong footing with its stakeholders. For gaining a competitive advantage in the market a good repute always plays the role of bonus score to stay ahead from others. (Hall 2006, p.92)

3.1. Concept of Crisis Management

The starting of life and birth of crisis has same date and time and will finish too at the same day i.e. On the Day of Judgment. The idea of crisis management went through evolution and development in length and breadth since inception at very fast pace (Pines, 2000, p.84). Manifold and multidimensional revolution in communication from era to era has given new impetus in types and shapes of crises. The theory about crisis was no longer explained as today if the 1962 Cuban Crisis not occurred. After that many a forms and concepts of crisis were written and become a well-organized discipline of study in all over the world now. In all the field of knowledge, like Management Sciences, Political Sciences, pure Sciences and international Relations, the term crisis is being used has different connotations and meanings. (Watson 2007, p.32)

3.2. Process of Crisis Management

The concept of ‘Crisis Management’ is not similar to mismanagement as described by Darling (1994) “Crisis is a type of situation that occurs due to lack of proper planning and insufficient availability of skilled personal” (p.19). The practice of crisis management has significantly changed during the recent period; Crisis Management is the important segment of any administration of an organization which safe guards all strategic assert of the organization before it glows to its peak. It should be given prime importance as it is the main umbrella under which an organization can achieve its objectives safely (Hall 2006).

The process of Crisis management is also providing a chance for organizations to handle the crisis or prepared them to avoid them. The main advantages to organizations are that they can plan crisis scenarios and develop crisis management plan accordingly (Drucker, 1999).

Coombs and Holladay, (1996) listed the following advantages through the process of crisis management for an organization.

- i. Developing a crisis management plan (CMP)
- ii. Development of Crisis Management Team (CRT)
- iii. Improved Communication Network

iv. Training, Evaluation & Feedback

The first and utmost response from an organization in the time of crisis is the communication network and media response cell. Communication is the important tool in the hands of a manager who is dealing the crisis. In time and fast communication can reduce the losses and develop trust between an organization and its stakeholders.

3.3. Educational Crisis Management System

In Education system the concept of crisis management is that the approach Educational managers (Heads of institutions) adopted to handle the crisis with their team members is said to be the Education crisis management system. Generally it is supposed that crisis management is the activity which involved pre planning, quick response, and recovery process to bring the situation at its normal level after any crisis event under the leadership of school Head. (Gainey, B.S. 2009)

Educational Organizations like schools and colleges are administrated by the teachers. These people entered in this field purely for teaching/learning process. They get promote at highest grades and posts purely on experience of teaching. It is general observation that a teacher which is weak to control the class (students) may become the head of institution (Shafa, D. 2010, p.20).

In Pakistan there is no concept of aptitude test for teachers to become managers and even this group of people never gone through any training of crisis management before joining the administrative post.

As the crises are varying in nature and impact with respect to level, but there should be some framework and strategy guidelines to handle the crisis at school level for school Heads. Kalra, (2008)., provides an analysis after many years of research about crisis management in schools through different methods and techniques used for handling crisis in education system. This is beneficial for overall learning, comprehension and analyzes the school environment, recommended methods, approaches and compulsory training programmes and courses to handle the crisis at school level.

According to Williams (1986) there are basic characteristics of crisis which may involve the school community.

- i. Having sequence with short time
- ii. Usually responded in same manners by the school community
- iii. Huge impact on the school and community
- iv. Threatened from crisis, remained helpless, seeking from others

In year 2006, Nickerson, Brock, and Reeves tried to define the term crisis in school environment as:

- i. Disruption of psychological homeostasis
- ii. The usual copy response mechanisms of an individual failed to reestablished homeostasis
- iii. Functional impairment produced due to impact of crisis

4. Methodology

All 36 District Education Officers (Secondary), 6,125 Heads of Secondary Schools and 24000 Secondary Schools Teachers (SST), was the population of the study. A systematic random sampling technique was used to draw sample of these three groups according to literacy rate of districts. In the sample of nine districts, three from top, three from bottom and three from the middle were taken as target districts. In order to collect data a detailed questionnaire for the DEOs, Head & Teachers was developed. Data collected through Questionnaire was tabulated, classified, analyzed and interpreted with the help of percentage, Mean and Standard Deviation.

Table (A): The Sample of the study and distribution of questionnaire are given below:

Respondents	Sample	Questionnaires Distributed	Questionnaires Returned	Rate of return
(DEOs)	9	9	9	100%
Head of School	36	36	34	94%
Teachers	144	144	140	97%
Total	189	189	183	97%

The concept of Preparedness and Response to Crisis, were Examined & analyzed through the following framework, comprises over the given key factors:

- i. Policy and Plan
- ii. Crisis Response Team (CRT)
- iii. Crisis Management Plan (CMP)
- iv. Network of Communication
- v. Training, Practice & Maintenance
- vi. Evaluation/ Feasibility of CM at school

The terms used in the questionnaires were (S.A = Strongly Agree (5), A= Agree (4), UN.C= Uncertain (3), D.A=

DisAgree (2), S.D.A= Strongly DisAgree (1), W.M & S.D = Weighted Mean & Standard Deviation)

5. Data Analysis and Findings of the Study

The data analysis and findings of the study discussed in the same table for convince and the findings indicated the main group factors' analysis.

5.1. The following tables indicate the data analysis and findings of the study regarding framework.

Table 1

1-POLICY AND PLAN							
Sr. #	Statement	S.A/% (5)	A/% (4)	UN.C % (3)	D.A/% (2)	S.D.A% (1)	W.M
1	According to Chief Minister's Road map there is a crisis management plan at district level for Secondary schools.	20(11.1)	163(88.8)	0 (0.0)	0 (0.0)	0(0.0)	4.1
2	Policy guidelines are given to each head of cluster center to response crisis in his cluster's schools.	122 (66.66)	20 (11.1)	0(0.0)	41(22.22)	0 (0.0)	4.2
3	Quarterly schedule of meeting is given to each head of cluster center to discuss the state of school with respect to upcoming crisis.	163 (88.88)	20 (11.11)	0 (0.0)	0 (0.0)	0 (0.0)	4.9
4	Special committees are established at district and tehsil levels for handling the crisis due to illegal encroachment of school land and building.	0 (0.0)	122 (66.66)	41(33.33)	0 (0.0)	0 (0.0)	3.7
Findings: The Average Mean 4.2 & S.D, 0.44 of this group (Mean \pm S.D) showed the trend towards agree to strongly agree region (4.56-3.68)							
2-CRISIS RESPONSE TEAM (CRT)							
5	A crisis response team has been established at district level for crisis management headed by Executive District Officer (Education).	81(44.44)	41 (22.22)	41 (22.22)	20 (11.11)	0 (0.0)	4.0
6	Written instructions / guidelines are given to each member of the team about the function of crisis response team.	81 (44.44)	0 (0.0)	81 (44.44)	21 (11.11)	0 (0.0)	3.8
7	Every team member of the team knows his responsibility to response in crisis	41 (22.22)	41 (22.22)	41 (22.22)	0 (0.0)	60(33.33)	2.9
8	Media is also involved to help in crisis management campaigns of Dangers buildings and drug uses within and outside the schools.	60 (33.33)	41 (22.22)	41 (22.22)	41 (22.22)	0 (0.0)	3.7
9	A meeting is called by DEO to analysis the progress of the team at quarterly basis.	81 (44.44)	21 (11.11)	81 (44.44)	0 (0.0)	0 (0.0)	4.0
Findings: The Average Mean 3.7 & S. D, 0.41 of this group (Mean \pm S.D) showed the trend towards agree to strongly agree region. (4.11-3.29)							

Table 2

Table 2

3-CRISIS MANAGEMENT PLAN (CMP)							
Sr. #	Statement	S.A/ (5)	A / (4)	UN.C (3)	D.A/ (2)	S.D.A% (1)	W.M
10	A written guidelines / plan have been given to each cluster center head for crisis management.	60 (33.33)	41 (22.22)	0 (0.0)	41 (22.2)	41 (22.22)	3.2
11	Plan indicates role of each member of the team in crisis.	60 (33.33)	123 (66.66)	0 (0.0)	0 (0.0)	0 (0.0)	4.3
12	Plan clearly indicates what response is to be needed in case of crisis.	123 (66.66)	60 (33.33)	0 (0.0)	0 (0.0)	0 (0.0)	4.7
Findings: The Average Mean 3.05 S.D, 0.78 of this group (Mean \pm S.D) showed the trend towards agrees to strongly agree region. (3.83-2.27)							
4-NETWORK OF COMMUNICATION							
13	There is an established liaison of Education department to other departments of the District.	41 (22.22)	101 (55.55)	41(22.2)	0 (0.0)	0 (0.0)	3.8
14	There is a network of communication between DEO office and Schools through Liaison officers	123(66.66)	60 (33.33)	0 (0.0)	0 (0.0)	0 (0.0)	4.7
15	Head of School can communicate to the District authorities at the time of any crisis	123(66.66)	60 (33.33)	0 (0.0)	0 (0.0)	0 (0.0)	4.7
16	District team has liaison with Rescue1122 and Emergency Services for managing crisis.	81(44.44)	101 (55.55)	0 (0.0)	0 (0.0)	0 (0.0)	
Findings: Average Mean 4. 4 & S. D, 0.40 of this group (Mean+ S.D) showed the trend towards strongly agree region. (4.8-4.0)							
5-TRAINING AND MAINTENANCE							
17	Training about crisis management at different levels makes the officials well aware of the cause of crisis and their handling.	0 (0.0)	101 (55.55)	81 (44.44)	0 (0.0)	0 (0.0)	3.6
18	Training of crisis management is compulsory for all Heads at last once in their life time.	123 (66.66)	60 (33.33)	0 (0.0)	0 (0.0)	0 (0.0)	4.7
19	Private sector organizations are involved to support and train the teachers for crisis management.	41(22.22)	41(22.22)	0 (0.0)	41(22.22)	60 (33.33)	2.8
Findings: The Average Mean 3.7 & S.D, 0.80 of this group (Mean \pm S.D) showed the trend towards agree to strongly agree region. (4.5-2.9)							

Table 3

6- TRAINING, PRACTICE AND EVALUATION							
Sr. #	Statement	S.A / % (5)	A / % (4)	U.N.C % (3)	D.A / % (2)	S.D.A % (1)	W.M
20	Training and refresher courses are conducted at quarterly basis in Schools.	145 (34.1)	115 (27.1)	95 (22.4)	55 (12.9)	15(3.5)	4.2
21	The performance of the team reviewed after every six months	90 (21.2)	220 (51.8)	80 (18.8)	35 (8.2)	0 (0.0)	3.8
22	Practices for crisis management are carried out during different functions in school, like parents day and sports week to handle the crisis.	130 (30.6)	220 (51.8)	50 (11.8)	25 (5.9)	0 (0.0)	3.8
23	Scouts leaders in school give training to students for crisis management.	120 (28.2)	205 (48.2)	50 (11.8)	45 (10.6)	5 (1.2)	3.9
Findings: The Average Mean 3.9 & S.D 0.16 of this group (Mean \pm S.D) showed the trend towards just agree region. (4.05-3.74)							

5.2. The following table indicates the data analysis and findings of the study regarding Management Styles.

Table 4

Management Styles		Responses					W.M
		Very Important (5)	Important (4)	Undecided (3)	Less Important (2)	Not important (1)	
		F (%)	F (%)	F (%)	F (%)	F (%)	
1	Autocratic	106 (57.64)	67 (38.2)	0 (0.0)	10 (4.16)	0 (0.0)	4.6
2	Democratic	32 (17.64)	34 (18.82%)	24 (12.94)	9 (5.2)	84 (45.41)	2.5
3	Bureaucratic	57 (31.29)	43 (23.52)	19 (10.35)	26 (13.88)	38, (20.94)	3.3
4	Laissez -Faire	0 (0.0)	0 (0.0)	38 (20.70)	62 (33.88)	83 (45.41)	1.7
Findings: The Average Mean 3.12 & S. D 1.1 of this group (Mean + S.D) showed the trend towards less important to important (4.2-2.0)							

5.3. The following table indicates the data analysis and findings of the study regarding Feasibility of Management Training/ Courses.

Table 5

Sr. #	Statement	Up to 100% (5)	Up to 75% (4)	Up to 50% (3)	Up to 25% (2)	Not at all (1)	W.M
1	Feasible to practices in schools	0 (0.0%)	0 (0.0%)	113 (62%)	70 (38%)	0 (0.0%)	2.6
2	Relevancy to school managerial practices	0 (0.0%)	0 (0.0%)	136 (74.4%)	23 (12.4%)	24 (13.2%)	2.6
3	Updated/Modified Regularly	0 (0.0%)	0 (0.0%)	0 (0.0%)	159 (86.8%)	24 (13.22%)	1.9
4	Budget Provision for CM	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	164 (89.3%)	0.9
Findings: The Average Mean 2.0 and S. D 0.8 of this group (Mean \pm S.D) showed the trend towards less than 50% region (2.8-1.2)							

6. Conclusion and Discussion

Analyses and findings of the study showed that, DEOs are going through the practice of implementing the policy, developing plans as required in the districts according to the Chief Minister's Road Map. They have communication channels to coordinate with other departments of the district, and there is also a CRT at district level, headed by Executive District Officer (EDO). But they are confused about its working at district level and training sessions in schools. This showed that officers are not actually involved practically in the process.

The overall comments received about the crisis management practices at district level seem to conclude that the group of DEOs is not satisfied with the development, objectives and execution of the CRT or they are not willing to do so. It also indicated that there is no concept of crisis management process at district level. Let start here: The main portion of the study sample comprises over the school Heads and teachers, their responses about CM at school level reflected that crisis management practices are part of their schools activities; they have CRT in schools comprised over teaching and non-teaching staff under the leadership of school Head. They work through network of communication creating awareness among the staff and students about crisis in school.

The response showed that the element of training in general and for specific events seemed to be missing. Heads of schools are not going through any training regarding crisis management during their whole services

At school level the responses of the Heads and teachers indicated that they adopt many management styles for handling crisis, but majority of the sample seemed to use Auto Cretic style of management for handling crisis in schools.

The relevancy of the School Management Training (SMT) for handling crisis at schools looks like apart from each other as the four basic elements: Feasibility to practices in schools, Relevancy to school managerial practices, Regular Up gradation, Budget Provision for CM have low mean and standard deviation which showed that one fourth of the sample is not hopeful about its execution (implementation) at school level.

7. Recommendations

The data analysis, findings, conclusion and discussion in this study lead to the following set of recommendations:

- a. The present so called "Crisis Management Plan" for secondary schools is not fully adopted nor has the potential for full implementation in given scenario of education. It may be updated or replaced with modern approach of analysis of each district as independent unit of crisis management and developing a plan according to the framework of provincial authority.
- b. The important factor which is missing in the ongoing crisis management practices is the "Training", it looks like the part of instructional manual only, in fact there is no concept of giving training practically, and therefore the mechanism for training should be the active part at all levels of crisis management plan.
- c. The concept of CRT may be re-address as it should be dynamic and having modern approach to handle crisis with training of members and submitting feedback to authorities on monthly and quarterly basis.

References

- AEPAM. (2006). Pakistan Educational Statistics, 2005-06. Islamabad: Academy of Educational Planning and Management.
- Arpan & Pompper. (2006). *Crisis Management in Education*. USA: The University of Colombia.
- Bhatti, A. (2010). *Education in Danger*. Islamabad: PAKISTAN ASIA SOCIETY
- Coombs, W.T & Holladay, W.J. (2000, 2002 &1996): Crisis management: Advantages of a relational perspectives. In J.A. Ledingham & S.D. Bruning (Eds.) *Public relations as relationship management: A relational approach to public relations*, 73-93. Mahwah, NJ:Lawrence Erlbaum Associates, Inc.
- Darling, (1994). *Principles of Management*. New Delhi, India: Cabbage Learning India Private Limited.
- Decker, P.H. (2007). *New Challenges in Educational Management*. Sterling, Virginia: Stylus Publishing, LLC
- Drucker, F. (1999). *Management Challenges for the 21st Century*: Great Britain: Butterworth-Heinemann Linacre House, Jordan Hill, Oxford OX2 8DP 225 Wildwood Avenue Wobourn.
- Fullan, M. (2006). Leadership for School Improvement. Retrieved from http://www.mcrel.org/pdf/leadershiporganizationdevelopment/5982tg_leadershipschoolorimprovement.pdf.
- Gainey, B.S. (2009). Crisis Management's New Role in Educational Settings. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 267-274
- Govt. of Pakistan (2011). *Education Sector Reforms*. Ministry of Education, Pakistan. Retrieved from <http://www.moe.gov.pk/et2.htm>
- Hall, M.R. (2006). Corporate philanthropy and corporate community relations:
- Herman, C.F. (1963). "International Crisis as a Situational Variable" in Rosenau, J.N. (Ed.), *International*

- Politics and Foreign Policy: A Reader in Research and Theory, New York: Free Press.
- Hutchins, H. M., & Garavan, T. (2009). Exploring the strategic role of HRD in organizational crisis management. *Human Resource Development Review*, 8(1), 22-53.
- Johnson, K. (2000). *School crisis management: hands out -on guide to training crisis response teams*. Hunter House Publishers, UK
- Kalra, A. (2008). *Efficient School Management and Role of Principals*. New Dehli, India: S.B Nangia, A P H Publishing Corporation.
- Kash, T. J., & Darling, J. R. (1998). Crisis management: Prevention, diagnosis and intervention. *Leadership & Organization Development Journal*, 19, 4, 179+.
- Measuring relationship-building results. *Journal of Public Relations Research*, 18(1), 1-21.
- Nickerson, A. B., Brock, S. E., Reeves, M.A., (2006), *School Crisis Teams within an Incident Command System*. *The California School Psychologist*, 11, 63-72.
- Pines.W.L, (2000). Myths of crisis management: *Public Relations Quarterly*, 45(3), 15- 17.
- Robbins, P.S. and Coulter, M. (1996). *Management: 5th Edition*. United States of Upper America: Prentice Hall, International Inc. A Simon and Schuster Company Saddle River, New Jersey 07458
- Shafa, D. (2010). *Challenges of School Improvement: A Study of Head teachers from the Northern Areas of Pakistan*. In *Educational Leadership in Pakistan: Ideals and Realities*. Karachi: Ameena Saiyid, Oxford University Press.
- The Oxford Reference Dictionary, Oxford, 1987
- Wang, J., Hutchins, H. M., & Garavan, T. (2009) . Exploring the strategic role of HRD in organizational crisis management, *Human Resource Development Review*, 8(1), 22-53
- Watson, W. (2007). *Managing risks faced by expatriate employees*. Washington, D.C.: Author.
- Williams, P. (1986). *Crisis Management*, London, Martin Robertson and Co. Ltd

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